IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Sakao et al.

Application No.: 09/445,085 Group Art Unit: 2654

Filed: December 2, 1999 Examiner: A. A. Armstrong

For DATA RECEIVING DEVICE AND DATA : RECEIVING METHOD

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicants hereby file this brief on Appeal to appeal from the final rejection of claims 50-66 mailed March 26, 2004, and in response to the Advisory Action mailed October 6, 2004. The present brief is presented in triplicate, together with the fee for filing the brief pursuant to 37 CFR 1.17(c).

01/24/2005 ZJUHAR1 00000062 121095 09445085
01 FC:1402 500.00 DA

REAL PARTY IN INTEREST

The real party in interest is Sony Corporation of Tokyo, Japan, the assignee of the present application.

RELATED APPEALS AND INTERFERENCES

None; appellants, appellants' legal representative and the assignee are not aware of any other appeals or interferences

01/24/2005 ZJUHAR1 00000028 121095 09445085
02 FC:1401 500.00 DA
Void date: 01/24/2005 ZJUHAR1
01/24/2005 ZJUHAR1 00000028 121095 09445085
02 FC:1401 500.00 CR
Void date: 01/24/2005 ZJUHAR1
01/24/2005 ZJUHAR1 00000029 121095 09445085
01 FC:1402 500.00 CR

01/24/2005 ZJUHAR1 00000029 121095 09445085
01 FC:1402 500.00 DA

which will directly affect or be directly affected by or have a bearing on the Board's decision in the presently pending appeal.

STATUS OF CLAIMS

Claims 1-49 have been cancelled by previously submitted amendment.

Claims 50-66 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,199,076 to Logan et al. ("*Logan*"), in view of U.S. Patent No. 6,516,299 to Case ("*Case*") and further in view of U.S. Patent Publication No. 2002/0042918 to Townsend et al. ("*Townsend*").

STATUS OF AMENDMENTS

There are no previously unentered amendments and no amendment is submitted herewith.

SUMMARY OF CLAIMED SUBJECT MATTER

The invention claimed in claims 50-51 and 58-66 appealed herein relates to an integrated receiver decoder (IRD). The IRD, e.g., IRD 12 (FIG. 6), of claim 50 includes a receiver having, for example, a tuner 51 operable to receive the broadcast compressed digital signal transmitted thereto over a transmission medium, e.g., over free space and/or via radio frequency transmission from a satellite 2 (FIG. 1; p. 11, lns. 4-8).

Referring to FIG. 6, the IRD 12 includes a Motion Picture Experts Group (MPEG) audio decoder 54 which is operable to decode the compressed digital signal received through tuner 51.

The IRD 12 further includes a first output terminal (IEEE 1394 interface 60 shown in FIG. 6) for providing the received compressed digital signal to an external device (storage device 13C; FIG. 5D) through a bi-directional data communication line (Dif Cable; FIG. 5D). The IRD 12 also includes a second output terminal, illustratively, an optical digital audio output terminal 59 (FIG. 6) for providing the decoded digital audio data from MPEG audio decoder 54 to the external device (storage device 13B; FIG. 5C) through a one way data communication line such as an optical fiber cable.

In addition, the IRD 12 includes a controller (control CPU 58) for controlling the IRD device 12 in accordance with a connection state between the IRD device and the external device (a connected one of storage devices 13B and 13C) such that either the first output terminal, i.e., IEEE 1394 interface 60, provides the received compressed digital signal to the connected external device 13C (through Dif cable; FIG. 5D), or, alternatively, the second (digital) output terminal 59 provides the decoded digital audio data to the external device 13B (through an optical fiber cable, for example; FIG. 5C).

As further claimed in claim 51, the IRD 12 can include a digital-to-analog converter 56 (FIG. 6) for converting the decoded digital audio data provided by MPEG audio decoder 54 to an analog output signal; and a third output terminal (at least one of T3 and T4) for providing the analog output signal to the external device 13A over the analog cable (FIG. 5B).

The invention claimed in claims 54-55 of the claims on appeal relates to a method for use in a device for receiving a broadcast compressed digital signal that is encoded according to an MPEG (Motion Picture Experts Group) algorithm. As an example, the broadcast compressed digital signal can be an audio

signal from a tune material registration system 32 (FIG. 3) which is encoded by an MPEG audio encoder 36A and compressed for transmission, such as over a satellite (FIG. 2) as described in the Specification at p. 10, ln. 18 through p. 11, ln. 2. The method includes the device (IRD 12) receiving the broadcast compressed digital signal transmitted thereto over a transmission medium (such as free space radio frequency transmission through free space and over air and through input T1 from low noise block down-converter (LNB) 15). The claimed method further includes decoding the received compressed digital signal, e.g., with an MPEG decoder 54 (FIG. 6) to provide decoded digital audio data. One of first and second output terminals (Dout and Dif terminals; FIG. 5C, 5D) of the IRD 12 is selected in accordance with a connection state between the device and an external device (storage device 13B or storage device 13C, respectively). As described at page 34, line 20 through page 38, line 7 of the Specification, selection is possible because the connection state is determinable by the IRD 12. (By way of example, the Specification describes several ways that the equipment can determine the connection state of its output terminals, as by issuing an inquiry command (S22; FIG. 10; p. 35, ln. 4-8), monitoring an output of a sensor to determine whether equipment is connected through an attached cable (p.36, lns. 16-19), or whether the user has selected equipment through a graphical user interface (p. 36, ln. 19 through p. 37, ln. 1).

When the first output terminal (Dif) is selected, the received compressed digital signal (from transport IC 53 of IRD 12) is provided to the external device 13C through a bi-directional data communication line (Dif Cable; FIG. 5D). When the second output terminal (Dout) is selected, the decoded digital audio data is provided from MPEG audio decoder 54 to the

external device 13B through a one-way data communication line (optical fiber cable; FIG. 5C).

Claims 52 and 56 recite a more detailed form of the invention in which additional information, e.g., "lyrics and the still picture data of the jacket" (p. 28, lns. 14-16) are multiplexed with the received compressed digital signal. The additional information is provided to the external device (13C; FIG. 5D) when the received compressed digital signal is provided to the external device through the first output terminal (Dif) (p. 29, ln. 18 through p. 30, ln. 2). However, the additional information is not provided to the external device (13B; FIG. 5C) when the decoded digital audio data is provided to the external device through the second output terminal (Dout). Also, the additional information is not provided to the external device when the analog output signal is provided to the external device (13A; FIG. 5B) through the third output terminal (Dout). (p. 30, ln. 18 through p. 31, ln. 2).

Claims 53 and 57 additionally recite carrying out control (e.g., by a control CPU 58) so that a connection between the first output terminal (IEEE 1394 I/F 60; FIG. 6) and the external device (13C; FIG. 5D) is preferentially selected. An example of such operation is described at p. 35, ln. 1 through p. 36, ln. 15 of the Specification in which connection is preferentially selected between the IEEE 1394 I/F 60 and the external device in preference over connection between one of the other output terminals of the IRD 12.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The only issues presented for review are whether claims 50-66 are obvious over *Logan* in view of *Case* and further in view of *Townsend*.

GROUPING OF CLAIMS

Claims 50-51, 54-55, and 58-66 present a first group of claims with common issues.

Claims 52 and 56 present a second group of claims with common issues and are believed to be separately patentable from the first group.

Claims 53 and 57 present a third group of claims with common issues and are believed to be separately patentable from the first and second groups.

ARGUMENT - CLAIMS 50-51, 54-55, and 58-66

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka,* 490 F.2d 981, 180 USPQ 580 (CCPA 1974). In addition, the claimed subject matter of the invention must be analyzed as a whole. *Stratoflex, Inc. v. Aeroquip Corp.,* 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.,* 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983). Distilling an invention down to the "gist" or "thrust" of an invention disregards the requirement of analyzing the subject matter "as a whole." *Bausch & Lomb v. Barnes-Hind/Hydrocurve, Inc.* 796 F.3d 443, 447-49, 230 USPQ 416, 419-420 (Fed. Cir. 1986), *cert. denied,* 484 U.S. 823 (1987).

The prior art rejections over *Logan, Case,* and *Townsend* cannot be maintained. First of all, *Logan* and *Townsend* are drawn from different arts. A person having ordinary skill in the art of *integrated receiver decoders* which are designed to receive a *broadcast* compressed digital signal, as recited in the presently pending claims, would not normally consider the teachings of *Logan,* because *Logan* only describes a player device

for non-broadcast signals. Rather than receiving *broadcast* signals, the audio program player described in *Logan* "allow[s] the listener to *dynamically* and *interactively* locate and select programming from the available collection" (*Emphasis added;* col. 1, ln. 66 through col. 2, ln. 1). *Logan* deliberately draws distinctions between the player described therein and broadcast audio programming. (*See* col. 1, lns. 20-30, ln. 64 through col. 2, ln. 3).

In addition, neither *Logan*, *Case* nor *Townsend* teaches or suggests an integrated receiver decoder having a first output terminal for providing the received compressed digital signal to an *external device*. Here, the Examiner cites *Logan* (col. 4, lns. 46-50) as teaching this feature. However, that passage of *Logan* merely indicates that "program data stored at 107 may advantageously include compressed audio recordings and/or text . . ." The program data storage 107 (included in player 103; FIG. 1) is variously described in *Logan* as the "program information 107" (col. 5, lns. 36-37), the "program data store 107" (col. 6, ln. 59) and the "player's local storage unit 107" (col. 7, ln. 13). Not once does *Logan* describe such storage as an "external device." In fact, *Logan* indicates only that the data storage system 107 in *Logan* is a permanent *internal* feature of player 103, not an "external" device as recited in claim 50. Moreover, the program data storage 107 only communicates directly with the client CPU 105. Only an improper, strained interpretation of *Logan* would equate the means described in *Logan* used to store and retrieve data by the client CPU 105 with a "first *output* terminal for providing the received compressed digital signal to an *external* device."

Moreover, such interpretation equates the client CPU 105 with the "integrated receiver decoder device" that is claimed, because only the client CPU 105 is shown and described

as communicating with the program data store 107. Clearly such interpretation cannot be maintained because the client CPU 105 in *Logan* is neither an IRD having a "receiver operable to receive a *broadcast* compressed digital signal transmitted over a transmission medium", nor does the CPU 105 have an MPEG audio decoder operable to decode a received compressed digital signal, both being required elements of the claimed IRD. *Logan* describes modem 115, not the CPU 105, as performing the receiving function for the player.

In addition, neither *Logan* nor *Case* nor *Townsend* teaches an IRD device having a second output terminal for providing decoded digital audio data, decoded from a received decompressed digital signal by a decoder of the IRD, to the external device through a one way data communication line. Here, the Examiner cites *Logan*, col. 7, lns. 63-66 as teaching this recited feature. However, this passage of *Logan* merely states "files downloaded from the host may be stored on a replaceable media. . . which may then be inserted into a portable computer." Clearly, the recited language of claim 50 is not met by the cited passage. There is nothing in *Logan* to indicate that the downloaded files contain "decoded digital audio data" decoded from a compressed digital signal received by the IRD. In addition, there is nothing in this passage or elsewhere in *Logan* that would indicate that the downloading operation also includes the decoding at the player of a received digital signal which is compressed as received. In addition, as argued above, there is no teaching or suggestion in *Logan* of a second output *terminal* for providing digital audio data to an *external device*.

Moreover, *Case* does not provide the teachings which *Logan* lacks with respect to the invention recited in the claims on appeal. *Case* merely describes a method of modifying an encoded audio signal in accordance with a playback destination. The encoded audio signal is modified with a first scale factor

for one destination, and is modified with a second scale factor for another destination. The audio signal is not decoded prior to being output to the external device, but remains an encoded audio signal in both cases.

In contrast to the invention recited in claim 50, *Case* merely describes a system in which a processor 50 has only one output terminal 62. As shown in FIG. 3 of *Case*, a single one-way communication line extends from the output terminal 62. The one-way line, in turn, is connected to one of three "playback destinations" 56, 58, 60. Thus, *Case* fails to teach a *first output terminal* for providing compressed digital data on a bi-directional communication line and a *second output terminal* for providing decoded digital data on a one way communication line.

Further, contrary to the position taken by the Examiner in the final Office Action, *Case* fails to teach or suggest a controller that controls the device in accordance with the connection state between the device and an external device. *Case* merely describes that the processor modifies the encoded audio signal based on the particular destination identified for playback via a control input 54. *Case* does not teach or suggest that the control input relates to the connection state between the processor and the playback destination. The disregard by *Case* for the connection state is borne out by the following. Nothing in *Case* requires that any destination 56, 58, 60 be connected to the processor 50 at the time that the control input 54 is provided to the processor 50. Moreover, there is neither a teaching nor a suggestion in Case that a particular one of the three destinations 56, 58, 60 be connected to the processor via a corresponding *data communication line* and a *corresponding output terminal* provided therefor, as recited in claim 50.

Claims 54 and 58 contain similar recitations and, therefore, should be allowed over the cited references for the same reasons as discussed above. In addition, all other claims

in this group depend from either claim 50, claim 54 or claim 58, and are allowable at least on that basis.

ARGUMENT - CLAIMS 52, 56

Neither *Logan*, *Case* nor *Townsend* teach or suggest that additional information multiplexed with the received compressed digital signal is provided to the external device when the received compressed digital signal is provided to the external device through the first output terminal, but that the additional information is not provided when another one of the output signals is provided to the external device through a different one of the output terminals.

While *Logan* describes more than one type of information being transmitted to player 103, *Logan* neither teaches nor suggests distinguishing between providing and not providing certain additional information to an external device based on the output terminal to which the external device is connected. Neither does *Case* or *Townsend*, which are not cited by the examiner for teaching this feature. Hence, claims 52 and 56 recite features which provide an independent basis for distinguishing the invention over the references cited by the examiner.

ARGUMENT - CLAIMS 53, 57

The examiner admits in paragraph 4 of the final Office Action dated March 26, 2004 that neither *Logan*, nor *Case* teaches or suggests a controller carrying out control so that a connection between the first output terminal and the external device is preferentially selected. However, the examiner states that "preferentially providing compressed data to an external

device was well known in the art as a mechanism for reducing data storage requirements."

Applicants assert that the examiner's statement concerning the prior art does not address the distinction argued in relation to the claimed feature. These claims recite preferentially selecting a *connection* between a given (first) one of first and second output terminals and an external device. The examiner's statement only relates to the content of information being provided to the external device, not to whether a first output terminal is preferentially selected ahead of a second output terminal. Thus, claims 53 and 57 also recite features which provide an independent basis for distinguishing the invention over the references cited by the examiner.

CONCLUSION

This Honorable Board should reverse the rejections of claims 50-66.

Dated: January 19, 2005

Respectfully submitted,

By _____
Daryl K. Neff
Registration No.: 38,253
LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK, LLP
600 South Avenue West
Westfield, New Jersey 07090
(908) 654-5000
Attorney for Applicant

APPENDIX

50. An integrated receiver decoder (IRD) device operable to receive a broadcast compressed digital signal, the IRD device comprising:

a receiver operable to receive the broadcast compressed digital signal transmitted thereto over a transmission medium;

a Motion Picture Experts Group (MPEG) audio decoder operable to decode the received compressed digital signal to provide decoded digital audio data;

a first output terminal for providing the received compressed digital signal to an external device through a bi-directional data communication line;

a second output terminal for providing the decoded digital audio data to the external device through a one way data communication line; and

a controller for controlling said IRD device in accordance with a connection state between said IRD device and the external device such that either said first output terminal provides the received compressed digital signal to the external device, or said second output terminal provides the decoded digital audio data to the external device.

51. The IRD device of claim 50, further comprising:

a digital-to-analog converter for converting the decoded digital audio data to an analog output signal; and

a third output terminal for providing the analog output signal to the external device.

52. The IRD device of claim 51, wherein additional information is multiplexed with the received compressed digital signal; and wherein the additional information is provided with the received compressed digital signal to the external device when the received compressed digital signal is provided to the external device through said first output terminal, while the additional information is not provided to the external device

when the decoded digital audio data is provided to the external device through said second output terminal or the analog output signal is provided to the external device through said third output terminal.

53. The IRD device of claim 50, wherein said controller carries out control so that a connection between said first output terminal and the external device is preferentially selected.

54. A method for use in a device for receiving a broadcast compressed digital signal encoded according to a Motion Picture Experts Group (MPEG) algorithm, the method comprising:

receiving the broadcast compressed digital signal transmitted thereto over a transmission medium;

decoding the received compressed digital signal with an MPEG decoder to provide decoded digital audio data;

selecting one of first and second output terminals in accordance with a connection state between the device and an external device;

when the first output terminal is selected, providing the received compressed digital signal to the external device through a bi-directional data communication line; and

when the second output terminal is selected, providing the decoded digital audio data to the external device through a one way data communication line.

55. The method of claim 54, wherein the selecting step selects one of first, second and third output terminals, the method further comprising:

converting the decoded digital audio data into an analog output signal; and

when the third output terminal is selected, providing the analog output signal to the external device.

56. The method of claim 55, wherein additional information is multiplexed with the broadcast compressed digital signal, the

method further comprising:

providing the additional information together with the received compressed digital signal to the external device when the received compressed digital signal is provided to the external device through the first output terminal, wherein the additional information is not provided to the external device when the decoded digital audio data is provided to the external device through the second output terminal or the analog output signal is provided to the external device through the third output terminal.

57. The method of claim 54, wherein the selecting step preferentially selects the first output terminal.

58. An integrated receiver decoder (IRD) device operable to receive a broadcast compressed digital signal, the IRD device comprising:

a receiver operable to receive the broadcast compressed digital signal transmitted thereto over a transmission medium;

a Motion Picture Experts Group (MPEG) audio decoder operable to decode the received compressed digital signal to provide decoded digital audio data;

a converter for converting the decoded digital audio data into an analog output signal;

a first output terminal for providing the received compressed digital signal to an external device through a bi-directional data communication line;

a second output terminal for providing the decoded digital audio data to the external device through a one way data communication line;

a third output terminal for providing the analog output signal to the external device; and

a controller for controlling said IRD device in accordance with a connection state between said IRD device and the external device such that either said first output terminal provides the

received compressed digital signal to the external device, or said second output terminal provides the decoded digital audio data to the external device, or said third output terminal provides the analog output signal to the external device.

59. An IRD device as claimed in claim 50 further comprising a Motion Picture Experts Group (MPEG) video decoder operable to decode the received compressed digital signal to provide a decoded digital video signal for output to a display device.

60. An IRD device as claimed in claim 50 wherein said transmission medium is over-the-air.

61. An IRD device as claimed in claim 60 wherein said receiver includes a tuner such that said receiver is operable to receive said over-the-air broadcast compressed digital signal at a selected frequency of a plurality of broadcast frequencies.

62. An IRD device as claimed in claim 61 wherein said receiver includes a descrambler coupled to receive output of said tuner such that said receiver is operable to descramble said over-the-air broadcast compressed digital signal.

63. An IRD device as claimed in claim 58 further comprising a Motion Picture Experts Group (MPEG) video decoder operable to decode the received compressed digital signal to provide a decoded digital video signal for output to a display device.

64. An IRD device as claimed in claim 63 wherein said transmission medium is over-the-air.

65. An IRD device as claimed in claim 64 wherein said receiver includes a tuner such that said receiver is operable to receive said over-the-air broadcast compressed digital signal at a selected frequency of a plurality of broadcast frequencies.

66. An IRD device as claimed in claim 65 wherein said receiver includes a descrambler coupled to receive output of said tuner such that said receiver is operable to descramble said over-the-air broadcast compressed digital signal.

TRANSMITTAL OF APPEAL BRIEF

Docket No.
SONYAK 3.3-064

In re Application of: Katsutoshi Sakao and Tadaharu Koga

Application No.	Filing Date	Examiner	Group Art Unit
09/445,085	December 2, 1999	A. A. Armstrong	2654

Invention: DATA RECEIVING DEVICE AND DATA RECEIVING METHOD

TO THE COMMISSIONER FOR PATENTS:

Transmitted herewith is the Appeal Brief in this application.

The fee for filing this Appeal Brief is 500.00 .

[X] Large Entity [ ] Small Entity

[ ] A check in the amount of _____ is enclosed.

[X] Charge the amount of the fee to Deposit Account No. 12-1095 .
This sheet is submitted in duplicate.

[X] The Commissioner is hereby authorized to charge any additional fees that may be required or credit any overpayment to Deposit Account No. 12-1095 .
This sheet is submitted in duplicate.

Dated: January 19, 2005

Daryl K. Neff
Attorney Reg. No. 38,253
LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK, LLP
600 South Avenue West
Westfield, New Jersey 07090
(908) 518-6396

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: MS Appeal Brief – Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.
Dated: January 19,2005 Signature: (Daryl K. Neff)